UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/766,803	01/30/2004	Marceau Coupechoux	Q79475	3115

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EXAMINER
PHU, SANH D

ART UNIT	PAPER NUMBER
2618	

DATE MAILED: 10/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	10/766,803	COUPECHOUX ET AL.
	Examiner	Art Unit	
	Sanh D. Phu	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _23 August 2006_.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-13_ is/are pending in the application.

  4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-3 and 5-13_ is/are rejected.

7)☒ Claim(s) _4_ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

  a)☒ All b)☐ Some * c)☐ None of:

  1.☒ Certified copies of the priority documents have been received.

  2.☐ Certified copies of the priority documents have been received in Application No. _____.

  3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

  * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
  Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
  Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1.   This Office Action is responsive to the Amendment filed on 8/23/06.

Accordingly, claims 1–13 are currently pending.

Claim Rejections – 35 USC § 112

2.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and
> distinctly claiming the subject matter which the applicant regards as his invention.

3.   Claim 7 is rejected under 35 U.S.C. 112, second paragraph, as being

indefinite for failing to particularly point out and distinctly claim the subject

matter which applicant regards as the invention.

Regarding claim 7, the phrase "such as" (see line 1) renders the claim

indefinite because it is unclear whether the limitations following the phrase are

part of the claimed invention. See MPEP § 2173.05(d).

Claim Rejections – 35 USC § 101

4.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or
> composition of matter, or any new and useful improvement thereof, may obtain a patent
> therefor, subject to the conditions and requirements of this title.

5.   Claim 7 is rejected under 35 U.S.C. 101 because the claimed invention is

directed to non-statutory subject matter.

Claim 7 recites "A computer program product, such as a digital storage

medium, ..."

In view of application's disclosure, the "digital storage medium" is not

limited to tangible embodiments. As such, the claim is not limited to statutory

matter and is therefore non-statutory.

Claim Rejections - 35 USC § 102

6.   The following is a quotation of the appropriate paragraphs of 35

U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section
122(b), by another filed in the United States before the invention by the applicant for patent
or (2) a patent granted on an application for patent by another filed in the United States
before the invention by the applicant for patent, except that an international application filed
under the treaty defined in section 351(a) shall have the effects for purposes of this
subsection of an application filed in the United States only if the international application

designated the United States and was published under Article 21(2) of such treaty in the English language.

7.   Claims 1, 2, 5-13 are rejected under 35 U.S.C. 102(e) as being anticipated by Chari et al (6,704,301), previously cited.

-Regarding to claim 1, see figures 2, 3A, 5, 6A, col. 3, line 9 to col. 7, line 27, col. 9, line 18 to col. 13, line 11, Chari et al discloses a method (see figure 5) of selecting of a path to establish a communication link between a first node ("client 550") and an access point ("Server 510") being one of a plurality of access points of a wireless cellular telecommunication system, (see col. 9, lines 18-36, col. 11, line 65 to col. 12, line 3), the wireless cellular telecommunication system having second nodes ("other clients") being adapted to serve as relay nodes (see col. 10, lines 16-17), the method comprising:

step of receiving of data (comprising "beacon") from at least one of the second nodes, the data being indicative of a first quality measure ("link quality") of a first path from the one of the second nodes to its access point (see col. 10, lines 28-46),

step of comparing of a second quality measure of a second path from the

first node to its access point with the first quality measure (see col. 3, lines 16–

45, col. 28–46, col. 12, lines 29–65), and

step of selecting of the first path (as a selected path) to replace the

second path (as an unselected path) if the first quality measure is superior to

the second quality measure (see col. 3, lines 16–45, col. 28–46, col. 5, lines

36–40, col. 12, lines 29–65).

-Regarding to claim 2, Chari et al discloses that the wireless cellular

telecommunication systems is a WLAN-type network (see figure 2 and col. 2,

lines 32–47, col. 3, lines 9–24).

-Regarding to claim 5, Chari et al discloses that the first and the second

quality measures depend on the number of hops in the first path and in the

second path, respectively (see col. 3, lines 34–50, col. 12, lines 31–35).

-Regarding to claim 7, see figures 2, 3A, 5, 6A, col. 3, line 9 to col. 7,

line 27, col. 9, line 18 to col. 13, line 11, Chari et al discloses a method (see

figure 5) for selecting of a path to establish a telecommunication link between a

first node ("Client 550") and an access point ("Server 510") being one of a

plurality of access points of a wireless cellular telecommunication system, (see

col. 9, lines 18-36, col. 11, line 65 to col. 12, line 3), the wireless cellular

telecommunication system having second nodes ("other clients") being adapted

to serve as relay nodes (see col. 10, lines 16-17), comprising:

step of inputting of data ("beacon") which have been received from at

least one of the second nodes, the data being indicative of a first quality

measure ("link quality") of a first path from the one the second nodes to its

access point (see col. 10, lines 28-46),

step of comparing of a second quality measure of a second path from the

first node to its access point with the first quality measure (see col. 3, lines 16-

45, col. 28-46, col. 12, lines 29-65), and

step of selecting of the first path (as a selected path) to replace the

second path (as an unselected path) if the first quality measure is superior to

the second quality measure (see col. 3, lines 16-45, col. 28-46, col. 5, lines

36-40, col. 12, lines 29-65).

Chari et al further teaches that the method can be carried out by a

computer program product (see figure 4) comprising program means (440,

450, 420, 427) for performing the steps of the method (see col. 8, lines 8-64).

-Regarding to claim 8, see figures 2, 3A, 5, 6A, col. 3, line 9 to col. 7,

line 27, col. 9, line 18 to col. 13, line 11, Chari et al discloses a mobile node

for a wireless cellular telecommunication system (see col. 9, lines 32-36), the

wireless cellular telecommunication system having second nodes ("other

clients") being adapted to serve as relay nodes(see col. 10, lines 16-17), a first

node ("Client 550") (see figure 5) of the telecommunication system comprising

means (570, 580) (see figure 5, col. 10, lines 35-46) for selecting of a path to

establish a telecommunication link to one of a plurality of access points of the

wireless cellular telecommunication systems (see col. 2, lines 48-55) by

performing the following steps:

step of receiving of data ("beacon") from at least one of the second

nodes, the data being indicative of a first quality measure ("link quality") of a

first path from the one of the second nodes to its access point (see col. 10,

lines 28-46),

step of comparing of a second quality measure of a second path from the node to its access point to the first quality measure (see col. 3, lines 16-45, col. 28-46, col. 12, lines 29-65), and

step of selecting of the first path, as a selected path, to a replace the second path as an unselected path, if the first quality measure is superior to the second quality measure (see col. 3, lines 16-45, col. 28-46, col. 5, lines 36-40, col. 12, lines 29-65).

-Regarding to claim 9, Chari et al discloses that the first and second quality measures depend on the number of hops in the first path and in the second path to the respective access points (see col. 3, lines 34-50, col. 12, lines 31-35)..

-Regarding to claim 10, see figures 2, 3A, 5, 6A, col. 3, line 9 to col. 7, line 27, col. 9, line 18 to col. 13, line 11, Chari et al discloses a wireless cellular telecommunication system (see figure 2) having a plurality of access points (220A, 220B), a first node (230E) and a plurality of second nodes (230A, 230B) being adapted to serve as relay nodes, the first node comprising means (580, 570) (see figure 5) for performing the following steps:

step of receiving of data ("beacon") from at least one of the second

nodes, the data being indicative of a first quality measure ("link quality") of a

first path from the one of the second nodes to its access point (see col. 10,

lines 28-46),

step of comparing of a second quality measure of a second path from the

first node to its access point with the first quality measure (see col. 3, lines 16-

45, col. 28-46, col. 12, lines 29-65), and

step of selecting of the first path, as a selected path, to replace the

second path, as unselected path, if the first quality measure is superior to the

second quality measure (see col. 3, lines 16-45, col. 28-46, col. 5, lines 36-40,

col. 12, lines 29-65).

-Regarding to claim 11, Chari et al discloses that the comparing

comprises comparing the second quality measure of the second path, from the

first node to the access point of the first node, with the first quality measure of

the first path, from the second node to the access point of the second node

(see col. 3, lines 16-45, col. 28-46, col. 12, lines 29-65).

-Regarding to claim 12, Chari et al discloses that the access point

("Server 510") (see figure 5) comprises a transceiver station (515) (considered

here equivalent with the limitation "base transceiver station") (see figure 5).

-Regarding to claim 13, Chari et al discloses that said second node is a

wireless relay node of the first node if the first path is selected over the first

path (see figure 2).

-Regarding to claim 6, Chari et al teaches that the data are transmitted as

a beacon signal which periodically transmitted at predetermined periodic

intervals from the access point, or namely at a predetermined frequency (see

col. 4, lines 38-40). Therefore, the data is inherently received by the first node

on the predetermined frequency.

Claim Rejections - 35 USC § 103

8.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for

all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or
> described as set forth in section 102 of this title, if the differences between the subject
> matter sought to be patented and the prior art are such that the subject matter as a whole
> would have been obvious at the time the invention was made to a person having ordinary
> skill in the art to which said subject matter pertains. Patentability shall not be negatived by
> the manner in which the invention was made.

9.   Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over

Chari et al in view of Serceki (2004/0102192), previously cited.

-Regarding to claim 3, Chari et al does not disclose step of scanning of a

set of frequencies by the first node to receive the data, as claimed.

However, Chari et al teaches that the data are transmitted as beacon

signals from the plurality of access points of a wireless cellular

telecommunication system (see col. 11, line 66 to col. 12, line 3) wherein each

of the beacon signals are periodically transmitted at periodic intervals, or

namely at a predetermined frequency (see col. 4, lines 38-40).

Serceki teaches that each of a plurality of access points can transmit

beacon signals to its client nodes on a respective frequency of a set of channel

frequencies so that the client nodes can scan by tuning over the set of channel

frequencies to receive the respective beacons signals (see figure 1, and [0009,

0028]).

Since Chari et al does not teach in detail how the beacon signals are

transmitted from plurality of access points and received by the first node, it

would have been obvious for a person skilled in the art to implement Chari et al

in such a way that each of the plurality of access points would transmit beacon

signals to its client nodes on a respective frequency of a set of channel

frequencies so that the first node would scan over the set of channel

frequencies to receive the respective beacons signals, as taught by Serceki, so

the data would be obtained by the first node as required.

With such the implementation, Chari et al in view of Serceki teaches step

of scanning of a set of frequencies by the first node to receive the data, as

claimed.

Allowable Subject Matter

10.   Claim 4 is objected to as being dependent upon a rejected base claim,

but would be allowable if rewritten in independent form including all of the

limitations of the base claim and any intervening claims.

-Regarding to claim 4, Chari et al in view of Serceki fails to further teach

that the scan is performed repeatedly after certain time intervals whereby the

length of the time intervals is adapted to the second quality measure.

Response to Arguments

11.   Applicant's arguments filed 8/23/06 have been fully considered but they

are not, in part, persuasive.

    -The claim objection to claim 5 has been withdraw since the claim was

amended and overcame the objection.

    -Applicant's arguments, with respect to the claim rejections under 35

USC 103 to claim 6, have been considered. However, claim 6 is deemed not

patentable over Chari et al with new reasons set forth above in this Office

Action.

    -Applicant's arguments, with respect to the claim rejections under 35

USC 102 to claim 1 and under 35 USC 103 to claim 3, are not persuasive. The

applicant mainly argues that:

    (i) with respect to claim 1, in Chari et al, the server (510) is not an access

point. Chari et al does not teach a second node is adapted to serve as a relay

node. Chari et al does not teach the limitations "receiving of data from at least

one of the second nodes, the data being indicative of a first quality measure of

a first path from the one of the second nodes to its access point", "comparing a

second quality measure of a second path from the first node to its access point

with the first quality measure", and "selecting of the first path to replace the

second path if the first quality measure is superior to the second quality

measure"; and

(ii) with respect to claim 3, it would not be obvious to modify Chari et al

to include scanning of a set of frequencies by the first node to receive the data

or receiving data on a pre-defined frequency.

-Regarding part (i), the examiner respectively disagrees.

Chari et al teaches the server (510) is an access point, ("considered here

equivalent with the limitation "access point", as claimed), by which clients (550)

can access/communicate with the internet (see figure 5, col. 9, lines 18-24).

Chari et al teaches a network architecture including at least the server

(510) , the internet and a large number of the clients (550) which have access to

the internet through the server (see figure 5, col. 2, lines 37-42, col. 9, lines

18-24). In Chari et al, the server periodically broadcasts a beacon to clients,

who, in turn, rebroadcast the beacon to lower-level clients. Theses

broadcasting and re- broadcasting permit each client to determine its path to

access the server. In operation, for instance, see figure 3, col. 4, line 32 to col.

5, line 38, a level-two client (315) may receive beacon rebroadcast from two or

more level-one clients, or in another word, receive the beacon relay from the

two or more level-one clients. Each of the two or more level-one clients acts as

an intervene node and form a profiled path from the server to the level-two

client (315). In this case, the level-two client (315) will select one of the two or

more profiled paths, and reject the others (see col. 5, lines 35-40). In

comparison, the level-two client (315) can be considered here equivalent with

the limitation "first node" and the level-one client of the selected path can be

considered here equivalent with the limitation "second node" and can be called

as a "relay node", as claimed, (since it serves as a node to relay/rebroadcast

the broadcast to the level-two client (315), and serves as an intervene node of

the selected path from the server to the level-two client (315)), the selected

path can be considered here equivalent with the limitation "first path", and the

unselected path considered here equivalent with the limitation "second path".

Chari et al further teaches that the level-two client (315) receives data

(e.g., Traffic Monitoring Code (TMC), or number of hops derived from the

beacon rebroadcast from the

the selected level-one client) indicative of a first quality measure "latency"

(considered here equivalent with the limitation "first quality measure") of the

corresponding profiled path (see col. 5, lines 7-15, 35-48, col. 6,lines 6-10).

Said teaching, therefore, can be considered here equivalent with the limitation

"receiving of data from at least one of the second nodes, the data being

indicative of a first quality measure of a first path from the one of the second

nodes to its access point".

Chari et al further teaches that in a process of the path selection, the

level-two client (315) compares the data (TMC) received from the selected

level-one client with a second data (TMC) indicative a second quality measure

of the second path from the level-two client (315) to the server (as its access

point), the second data being received from the non-selected level-one client

which serves as an intervene node of the second path; and the level-two client

(315) then selects the first path and rejects the second path since the first

quality measure is superior "lowest latency" to the second quality measure (see

col. 5, lines 8-12, 35-48). Said teaching, therefore, can be considered here

equivalent with the limitations "comparing a second quality measure of a

second path from the first node to its access point with the first quality

measure", and "selecting of the first path to replace the second path if the first

quality measure is superior to the second quality measure", as claimed.

-Regarding to part (ii), the examiner also disagrees. As being explained

in the rejection set forth in the Office Action, Chari et al does not disclose step

of scanning of a set of frequencies by the first node to receive the data, as

claimed.

However, Chari et al teaches that the data are transmitted as beacon

signals from the plurality of access points of a wireless cellular

telecommunication system (see col. 11, line 66 to col. 12, line 3) wherein each

of the beacon signals are periodically transmitted at periodic intervals, or

namely at a predetermined frequency (see col. 4, lines 38-40).

Serceki teaches that each of a plurality of access points can transmit

beacon signals to its client nodes on a respective frequency of a set of channel

frequencies so that the client nodes can scan by tuning over the set of channel

frequencies to receive the respective beacons signals (see figure 1, and [0009,

0028]).

Since Chari et al does not teach in detail how the beacon signals are

transmitted from plurality of access points and received by the first node, it

would have been obvious for a person skilled in the art to implement Chari et al

in such a way that each of the plurality of access points would transmit beacon

signals to its client nodes on a respective frequency of a set of channel

frequencies so that the first node would scan over the set of channel

frequencies to receive the respective beacons signals, as taught by Serceki, so

the data would be obtained by the first node as required.

With such the implementation, Chari et al in view of Serceki teaches step

of scanning of a set of frequencies by the first node to receive the data, as
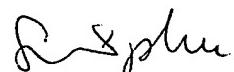
claimed.

Conclusion

Any inquiry concerning this communication or earlier communications

from the examiner should be directed to Sanh D. Phu whose telephone number

is (571)272-7857. The examiner can normally be reached on M-Th from 7:00-

17:00.

If attempts to reach the examiner by telephone are unsuccessful, the

examiner's supervisor, Matthew D. Anderson can be reached on (571) 272-

4177. The fax phone number for the organization where this application or

proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from

the Patent Application Information Retrieval (PAIR) system. Status information

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Representative or access to the automated information system, call 800-786-

9199 (IN USA OR CANADA) or 571-272-1000.

Sanh D. Phu
Examiner
Division 2618

9/25/06

SP

SANH D. PHU
PATENT EXAMINER